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| <b>TRANSMITTAL LETTER TO THE UNITED STATES<br/>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br/>CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>   |  | ATTORNEY'S DOCKET NUMBER<br>Serie 6338<br>U.S. APPLICATION NO. (if known, see 37 CFR 1.51)<br>Not yet assigned |
| INTERNATIONAL APPLICATION NO.<br>PCT/FR2004/050419  | INTERNATIONAL FILING DATE<br>September 9, 2004 | PRIORITY DATE CLAIMED<br>September 16, 2003  |
| TITLE OF INVENTION<br>Device for the transfer of water and heat between two air flows and use thereof for the humidification of fuel cell inlet gas   |  |  |
| APPLICANT(S) FOR DO/EO/US<br>L'Air Liquide, Société Anonyme à Directoire et Conseil de Surveillance pour l'Etude et l'Exploitation des Procédés Georges Claude                                |  |  |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:   |  |  |
| 1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.  |  |  |
| 2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.   |  |  |
| 3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. |  |  |
| 4. <input type="checkbox"/> The US has been elected (Article 31).   |  |  |
| 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))   |  |  |
| a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).  |  |  |
| b. <input type="checkbox"/> has been communicated by the International Bureau.  |  |  |
| c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).  |  |  |
| 6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).   |  |  |
| a. <input checked="" type="checkbox"/> is attached hereto.  |  |  |
| b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).  |  |  |
| 7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))  |  |  |
| a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).  |  |  |
| b. <input type="checkbox"/> have been communicated by the International Bureau.   |  |  |
| c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.   |  |  |
| d. <input type="checkbox"/> have not been made and will not be made.  |  |  |
| 8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).   |  |  |
| 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).  |  |  |
| 10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).                   |  |  |
| Items 11 to 20 below concern document(s) or information included:   |  |  |
| 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.  |  |  |
| 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.  |  |  |
| 13. <input checked="" type="checkbox"/> A preliminary amendment.  |  |  |
| 14. <input type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.   |  |  |
| 15. <input type="checkbox"/> A substitute specification.  |  |  |
| 16. <input type="checkbox"/> A power of attorney and/or change of address letter.   |  |  |
| 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.  |  |  |
| 18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).  |  |  |
| 19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).  |  |  |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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|   |              |   |         |   |              |
|---|--------------|---|---------|---|--------------|
| U.S. APPLICATION NO. (If known, see 37 CFR 1.5)<br><b>Not yet assigned 568721</b>   |              | INTERNATIONAL APPLICATION NO.<br><b>PCT/FR2004/050419</b>                     |         | ATTORNEY'S DOCKET NUMBER<br><b>Serie 6338</b> |              |
| 20. Other items or information:   |              |   |         |   |              |
| The following fees have been submitted  |              |   |         | CALCULATIONS                                  | PTO USE ONLY |
| 21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a))..... \$300   |              |   |         | \$ 300  |              |
| 22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))   |              |   |         |   |              |
| If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0   |              |   |         |   |              |
| All other situations..... \$200   |              |   |         | 200   |              |
| 23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b))  |              |   |         |   |              |
| If the written opinion of the ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4)..... \$0  |              |   |         |   |              |
| Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$100  |              |   |         |   |              |
| International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB..... \$400   |              |   |         |   |              |
| All other situations..... \$500   |              |   |         | 500   |              |
| TOTAL OF 21, 22 and 23 =  |              |   |         | 1,000   |              |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof. |              |   |         |   |              |
| Total Sheets  | Extra Sheets | Number of each additional 50 or fraction thereof (round up to a whole number) | RATE    |   |              |
| 7 - 100 =   | 0 /50 =      | 0   | x \$250 | \$ 0  |              |
| Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).   |              |   |         | \$ 130  |              |
| CLAIMS  | NUMBER FILED | NUMBER EXTRA  | RATE    |   |              |
| Total claims  | 14 - 20 =    | 0   | x \$ 50 | \$ 0  |              |
| Independent claims  | 1 - 3 =      | 0   | x \$200 | \$ 0  |              |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)   |              |   | + \$360 |   |              |
| TOTAL OF ABOVE CALCULATIONS =   |              |   |         | \$  |              |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.  |              |   |         |   |              |
| SUBTOTAL =  |              |   |         | \$  |              |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).   |              |   |         | \$  |              |
| TOTAL NATIONAL FEE =  |              |   |         | \$  |              |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property  |              |   |         | \$  |              |
| TOTAL FEES ENCLOSED =   |              |   |         | \$  |              |
|   |              |   |         | Amount to be refunded:                        | \$           |
|   |              |   |         | Amount to be charged                          | \$ 1,130.00  |

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- AP20 Rec'd PCT/PTO 17 FEB 2006
- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 01-1375 in the amount of \$ \$1,130.00 to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 01-1375. A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:

Linda K. Russell  
IP Dept.  
Air Liquide  
2700 Post Oak Blvd., Suite 1800  
Houston, TX 77056



SIGNATURE

Linda K. Russell

NAME

34,918

REGISTRATION NUMBER

10/568721

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1AP20 Rec'd PTO 17 FEB 2006

Application No.: Not yet assigned  
Applicants: Guillaume ROBERGE, et al.  
Filed Internationally: September 9, 2004  
US National: Herewith  
Title: DEVICE FOR THE TRANSFER OF WATER AND HEAT  
BETWEEN TWO AIR FLOWS AND USE THEREOF FOR THE  
HUMIDIFICATION OF FUEL CELL INLET GAS  
TC/A.U: Unknown  
Examiner: Unknown  
Docket No.: Serie 6338  
Customer No.: 000040582

CERTIFICATE OF MAILING BY EXPRESS MAIL

Mail Stop Patent Application  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I hereby certify that the following documents, which are attached, are being deposited, under 37 CFR 1.10, with the United States Postal Service "Express Mail Post Office to Addressee" service as **Express Mail No. EV 856913751 US** in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450; on **February 17, 2006**.

1. A copy of International Publication WO 2005/027251;
2. English translation of International Application PCT/FR2004/050419;
3. Preliminary Amendment;
4. Transmittal Under 35 USC 371 (PTO Form 1390) Fee Sheet (in duplicate);  
and
5. Postcard.

Respectfully submitted,

  
Diana Guzman

Date: February 17, 2006

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